SmarrCopy™ CD/DVD Duplicator

User's Manual

USER'S MENU

Copyright and Trademark Statement

The information contained in this work is the exclusive property of Utronics International, Inc., and any respective copyright owners. This work is protected under United States copyright law and other international copyright treaties and conventions.

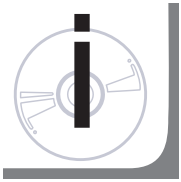
No part of this work may be reproduced or transmitted for commercial purposes, in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing.

Disclaimer--This document has been produced for informational purposes only and as a service to our customers. The systems intended use is for copying and editing of personal audio and video data. Any attempted use of this equipment for the duplication of copy-protected materials is a criminal act and the manufacturer is not responsible for such illegal recordings.

Warranty and Limitation of Liability--THE INFORMATION AND/OR MATERIALS CONTAINED HEREIN ARE PROVIDED “AS IS,” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The Company shall not be liable for direct, indirect, special, incidental, or consequential damages related to your decision to use any of the information in this document, even if we are advised of the possibility of such damage.

The information contained in this document is subject to change without notice. SmarrCopy™, and the SmarrCopy™ logo are the legal property of Utronics International, Inc.



INDEX

Chapter 1 INTRODUCTION 5

1.1 Overview 5
1.2 Features of SmarrCopy CD/DVD/Duplicator.....5

Chapter 2 GETTING STARTED 7

2.1 Before You Start.....7
2.2 Unpacking the Case.....7
2.3 Installation Instructions 7
2.4 About the LCD Panel Display.....9
2.5 Turing on the system.....9

Chapter 3 THE BASICS 10

3.1 Function 10
3.2 Start the System 11
3.3 Disc Duplication 12
3.3.1 Disc-to-Disc Copy.....12
3.3.2 HDD-to-Disc Copy 13
3.3.3 Set (HDD) Partition Name 14
3.4 Edit and Duplicated Audio CDs.....15
3.4.1 Compilation and Duplication Thru CD/DVD Drives 15
3.4.2 Compilation and Duplication Thru Built-In HDD 16
3.4.3 Delete the Contents in HDD Partition.....17
3.5 Unable to Identify the Master CD Being w/o RING Protection.....18
3.6 RING Setup in Master CDs.....19
3.7 Updating the Controller Firmware.....20

Chapter 4 NOTE.....21

Chapter 5 MENUS IN THE OPERATION MODE 23

5.1 Test 23
5.2 Copy.....23
5.3 Compare 23
5.4 Copy & Compare 23
5.5 Verify.....23
5.6 Erase.....23
5.7 Load 24

Chapter 6 MENUS IN THE SETUP MODE 25

6.1 Partition Name 25
6.2 Set as Default 25
6.3 Update Firmware 25
6.3.1 Updating the Controller Firmware.....25
6.3.2 Updating Drive/Writers Firmware 26
6.3.3 What You Have to Know About Firmware Update 27
6.3.4 The Firmware Support List CD/DVD Drives 27
6.4 CD Reading Speed 34
6.5 CD Writing Speed 34
6.6 DVD Reading Speed.....34
6.7 DVD Writing Speed.....35
6.8 Burn Test Mode.....35
6.9 Advanced Setup.....35

Chapter 7 MENUS IN THE ADVANCED MODE 36

7.1 Choose Source 36
7.2 Disc Counter 36
7.3 Skip Read Err.....37
7.4 CD Writing Way.....37
7.5 DVD Writing Way 38
7.6 Check TRK LEN.....38
7.7 Show Disc Info. 38
7.8 Show System Info. 38
7.9 Show EXE. Time 38
7.10 Auto EXE. Time.....39
7.11 Enable Send OPC.....39
7.12 Support UPC/ISRC 39
7.13 Region Free Set.....39
7.14 Partition Size.....40
7.15 CD GigaRec Rate 40
7.16 Disable L0 Change 40
7.17 Boot Delay Time.....41
7.18 Fast Close Disc.....41
7.19 Disable Power Rec. 41
7.20 Auto Close Tray.....41

Chapter 8 APPENDIX.....42

8.1 Specification.....42
8.2 Main Board Diagram 43
8.3 Installation Instruction 43
8.4 Error Code Definitions.....45
8.5 Troubleshooting 46

INTRODUCTION

1.1 Overview

Thank you for purchasing the SmarrCopy™ CD/DVD duplicator system and welcome to this User's Guide. This system is a work of the art in the age of DVD Duplication. Your SmarrCopy™ Controller is capable of providing superior quality copies in 18X high-speed mode with 18X DVD burners installed on independent IDE Channels (18X for M09). It can be used for quick system backups and supports various blank disc formats. Its robust operating functions can be easily performed thru a simple two button user-friendly interface. The SmarrCopy™ supports most DVD writers, like NEC, Pioneer, Sony, Lite-On …… etc..

1.2 Features of SmarrCopy™ CD/DVD Duplicator 163/165/167/1611

A. Supports 18X writing speeds when installed on independent IDE channels.
B. Uses UDMA4 mode for data transfer.
C. All DVD burners are allowed to run at full speed both independently and simultaneously.
D. Up to 128MB buffer RAM. A sufficient amount of RAM insures efficient flow of data from the reader to the burner, increasing the chances of a successful high-speed burn.
E. An optional built-in HDD will allow storage of image files.
F. Format & name HDD partitions.
G. Because HDDDs perform better than ROM drives, a data transfer from the HDDD to the DVD burner is less prone to error and copy speeds are greatly improved.
H. Music CDs can be edited on the HDDD using the controller menus.
I. Users can chose and set different Read/Write speeds to improve copy quality.
J. Support various writing methods such as TAO, SAO/DAO, RAW and Incremental to meet users' needs and increase DVD burner compatibility. Using the appropriate writing methods will result in improved compatibility between DVD burner and media type.
K. This duplicator is a "Standalone" unit and does not require a PC connection to control any of its CD/DVD functions. All functions are controlled using the simple two- button controls on the front of the unit.
L. The "Automatic Check" function on the controller card provides detailed information on the source disk.

M. The controller card also provides information about blank disks.
N. Error codes are provided and will be displayed on the controller's display screen.
O. Backup and recover data written on minor defective tracks of original discs.
P. The system provides a "VERIFY" function to check source discs for bad sectors.
Q. The system's firmware can be upgraded by inserting upgrade disc.
R. The system can count the number of copied and failed discs.
S. With a built-in HDD, the user can use "Load" function to load source discs to a preset or assigned location.
T. Execution time will be displayed in the LCD panel display.
U. Supports Plextor px-712a writer GigaRec technique.
V. Supports unlocking DVD video region coding.
W. Supports UPC (Universal Products Code) and ISRC (International Standard Recording Code) to simplify backing up a complete disc.

1.2 Features of SmarrCopy™ CD/DVD Duplicator M09

1. Assemble and operate 9 DVD drives at most in a complete system.
2. Drives run simultaneously in full speed. Each operates individually without interfering with the others.
3. Up to 128MB buffer RAM. A sufficient amount of RAM insures efficient flow of data from the reader to the burner, increasing the chances of a successful high-speed burn.
4. An optional built-in HDD will allow storage of image files.
5. The <MUSIC DJ> function, Edit and Duplicate Audio CDs, enables the compilation of music albums whenever the source is in the optical drive or in HDD.
6. Users can manually set both the reading and writing speeds to achieve better quality. The controller also provides read/write speed and laser power adjustments On-The-Fly.
7. Controller supports and differentiates most types of discs.
8. Controller provides users with main functions such as TEST(Simulate Duplication), COPY, VERIFY,COMPARE, and ERASE.
9. Easy upgrade of the controller's firmware using factory supplied CD.
10. All sectors and tracks of the source disc are inspected prior to the duplication by controller in order to avoid any failed copies.

2 GETTING STARTED

2.1 Before you start

This product is for you to backup and save data. Please refer to the copyright statement contained on front of inside cover

2.2 Unpacking the case

Please check that the following accessories have been included with your SmarrCopy™ CD/DVD Duplicator.

1) Controller Card: Controller card and user's manual.
2) Standard System: DVD-ROM Drive, CD/DVD Writers, Case with Power Supply, and Power Cord, IDE HDD(Optional).

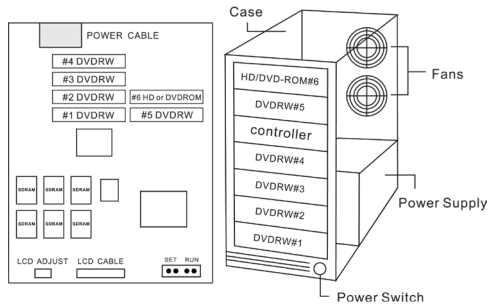
Please Note: If what you have purchased including the options, please check the model and the numbers carefully. Contact your local dealer if you find any defects or shortage.

2.3 Installation Instructions

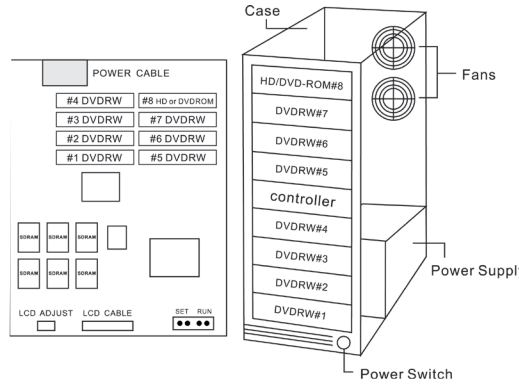
Please check before you plug the system into a power source, that the voltage setup fits your local standard (120V A.C. or 240V A.C.). If you do not know, please ask your local dealer. If the purchased product includes a DVD-ROM Drive, CD/DVD Writers, or a built-in HDD, please refer to their manufacturers' installation illustrations and user guides for those devices.

Installation Diagram of SmarrCopy™ CD/DVD Duplicator controller.

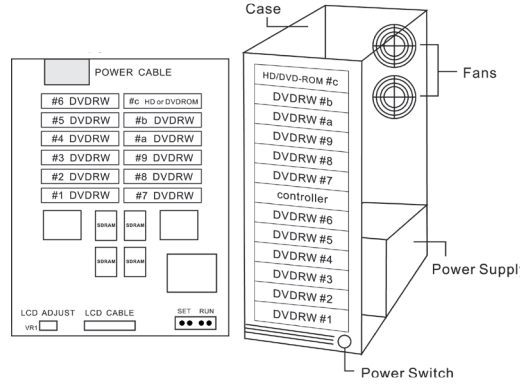
DVD-161



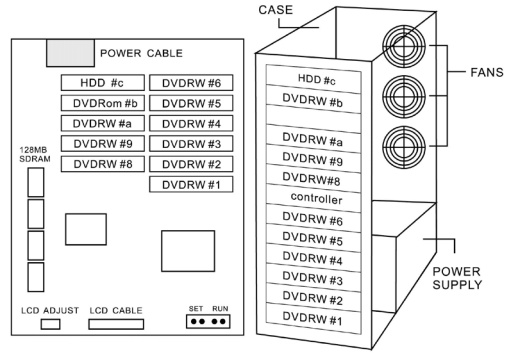
DVD-167



DVD-1611

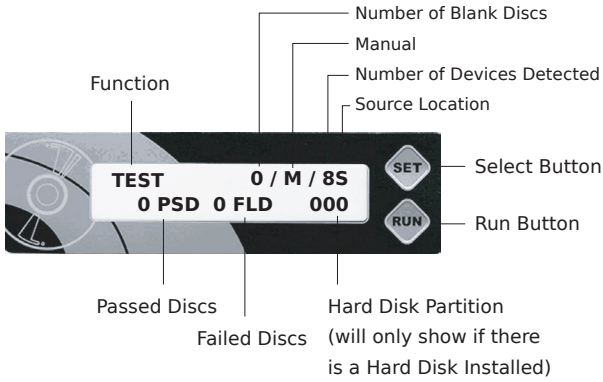


DVD-M09



2.4 About the LCD Panel Display

The diagram for SMARRCOPY CD/DVD DUPLICATOR LCD Panel Display



The buttons can be used to perform different functions depending on which mode you are in or which function menu you are using. Please refer to corresponding chapters and sections.

2.5 Before Turning the System on

Before you turn the system on, please make sure that the following conditions are met.

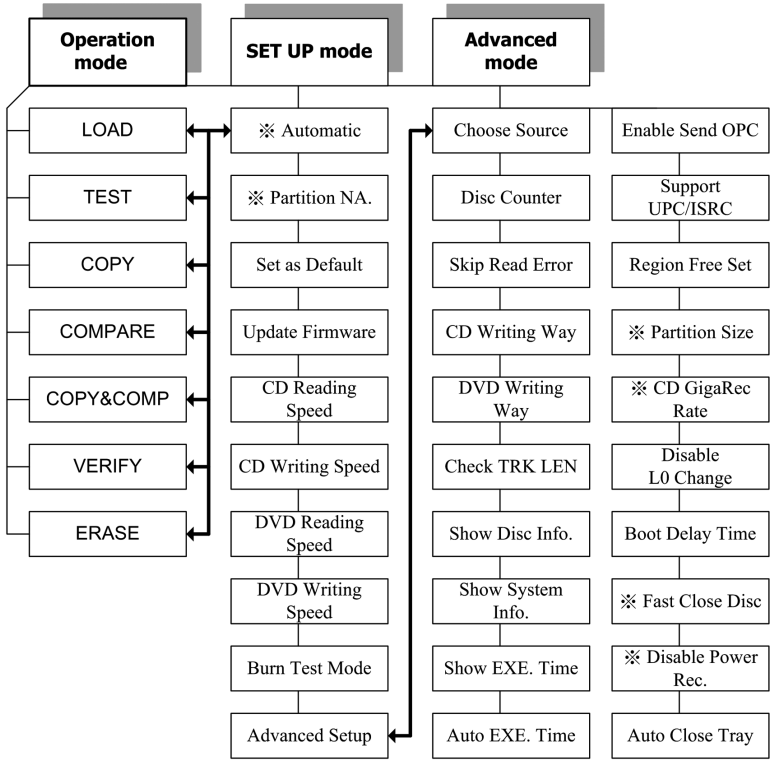
1. SmarrCopy™ CD/DVD duplicator system is put on a flat and steady surface to illuminate errors due to vibration or slope.

2. The voltage setting to the power supply must be set to the local standard (120/240V A.C.). Serious damage will occur if the voltage setting is not correct.

3. The system drives work at high speed to access data and thus produces excessive heat. Heat removal is therefore a key factor for proper operation. The temperature in the working environment should be kept at about 25° C/ 77° F or room temperature. The system needs to be positioned so that the multiple fans in the unit can ventilate the unit and remove the heat to insure that the unit will operate properly.

3 THE BASICS

3.1 Function Tree



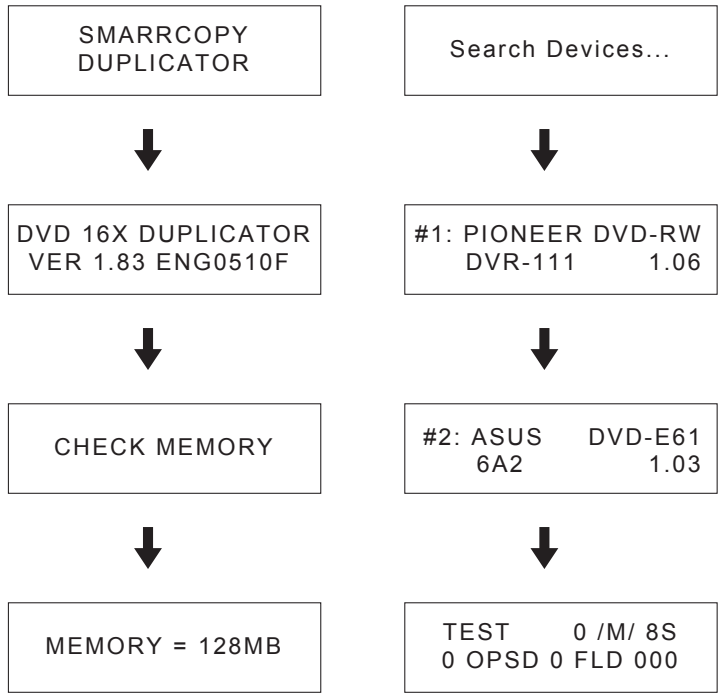
*The above features will be displayed in the LCD panel display while the device is being installed.

3.2 Starting the System

Once the set up in 2.6 above has been performed, you may start the system. Once started the controller card display will indicate the program version used in your particular system. It then searches linked drives, writers, or HDD. The searching process can be seen in the display screen. The devices searched by SmarrCopy™ CD/DVD duplicator controller follows in order #1, #2, #3, and so on. If there are any missing devices indicated by the system, please check to see that the flat cables and power lines are in connected securely, and see that the DVD-ROM Drive, writers, and the HDD are all in good condition. If this problem persists, please refer to the troubleshooting section of this guide or contact your local dealer for services.

The Start Frames

The following frames show the start-up sequence of system checks.



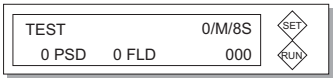
3.3 Disc Duplication

(The following operations are based on the controller's default settings)

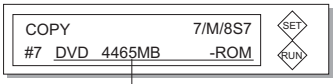
3.3.1 Disc-to-Disc Copy

Insert separately the source disc in drive/writer, and the target(s) media in writers. Wait until all the discs are detected. The status of the source disc and the blank media can be seen in the upper right side of the LCD display. Press the [SET] button to change to {COPY} function and then press the [RUN] button to initiate the duplication. The drive devices automatically eject the discs separately for passed and failed copies.

Direct Copy:

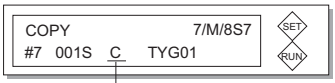


1. In Operation Mode, Insert the source and blank discs. Wait until controller detects the source device code and the amount of the blank ones.



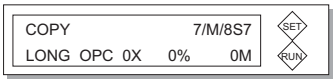
The content of the source disc.

2. If the source disc is ready, the LCD display shows the device code and the content of the source disc in flashing letters. Press **[**RUN**]** for copy.

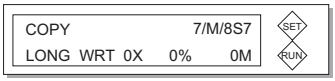


The session of the disc is closed

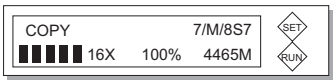
3. The disc maker info.. This session of the disc is closed. No more data can be filled in. There is mono session of data in the source disc.



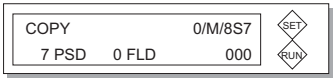
4. [LONG OPC]
Controller does OPC, Optical Proximity Correction, on blank discs. In the limit of laser power in the disc, it finds the best laser power value.



5. [LONG WRT]
Controller is writing in th lead-in area of blank disc.



6. Controller is now duplicating the discs and showing the related info. at the same time.

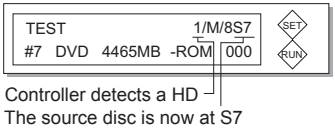


7. Once the duplication is finished, the system will eject all good copies. The controller shows the total number of copies passed and failed. The LCD on the left shows 7 passed copies.

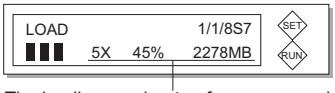
3.3.2 HDD-to-Disc Copy

This function is available only when the system includes a built-in HDD. First, insert the source disc in any of the writers and then wait until the system detects the source. The LCD display then shows in the upper right side the source disc and its IDE location. Press the [SET] button to change to {LOAD}; it will then start to download the contents of source disc to the HDD. Once the system accomplishes the download to the built-in HDD, you can remove the source disc. Press the [SET] button to change to {COPY} and then insert the target blank discs. Press the [RUN] button to initiate the duplication.

Load to HD for COPY to Burner:

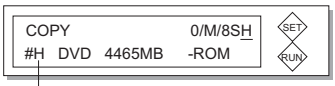


1.In operation mode, insert the source and blank discs. Wait until controller detects the position of the source and the number of blanks. (You can refer to " Direct Copy") The partition is at 000.



2. Switch to LOAD thru **[**SET**]**. Press **[**RUN**]** to load the data from the source disc. During the loading, the LCD display shows the rate of progress, the speed in loading, and the flashing letters to show the current loaded volume.

3. The controller then ejects the source disc



4. The source disc information will flash in the LCD display.

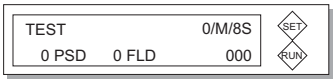
3.3.3 Set (HDD) Partitions Name

Each HDD partition is identified using 5 digits. The first 2 digits are used for the ID setting to the HDD. The remaining 3 digits represent the position on HDD partition. The capacity of HDD determines the number of partitions. When loading CDs onto HDD, the HDD will be divided into 1GB/per partition. When loading DVDs onto a HDD, the HDD will be divided into 9GB/per partition.

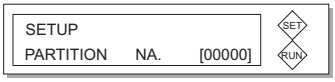
Example of 80GB HDD:
For CD loading, the HDDD is split up into 80 partitions using codes 00000-00079
For DVD loading, The HDDD is split up into 8 partitions using codes 00000-00007

Press and hold the [SET] button for 3 seconds. The function will then change to the {SETUP} mode. Press the [SET] button to change to {PARTITION NAME}. The [SET] button selects the position of partitions and the [RUN] button will change partition codes. Once the setting is finished, press and hold the [SET] button for 3 seconds to complete the setting.

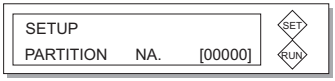
Set Partition Name:



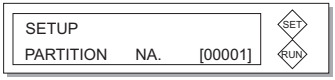
1. In operation mode, press [SET] until it beeps. It will then enter the setup mode.



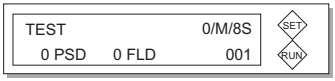
2. If the controller had installed the Hard Disk, you will see the function of “Partition NA.” firstly after entered the setup mode.



3. You can start the partition setup when it’s in “Partition NA.”
Shift the position of partition thru **[**SET**]**
Change the partition number thru **[**RUN**]**



4. When the setup is finished, press [SET] until it beeps. The partition setup is now finished. Press [SET] once more to exit the setup mode.



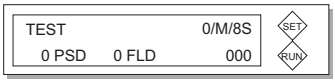
The partition name has been changed to 001.

3.4 Edit and Duplicate Audio CDs

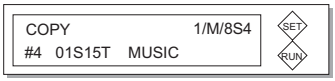
3.4.1 Compilation and duplication thru CD/DVD drives

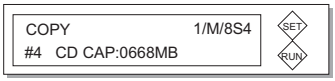
SmarrCopy™ CD/DVD duplicator controller enables the compilation of one or more audio disc(s). The maximum capacity to the compilation is 99 minutes or 99 tracks per disc.

Music DJ Music Compilation:

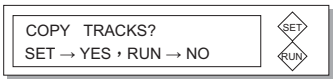


1. In operation mode, press **[**SET**]** to switch to COPY.

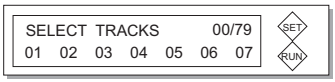




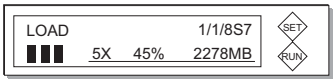
2. Insert the source and blank discs. Wait until controller detects the device code of the source and the length of the disc. Press **[**RUN**]** until the beep. You are able to select music tracks from drive now.



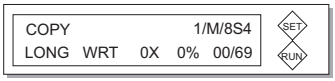
3. Press **[**SET**]** to select music tracks.



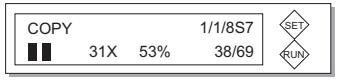
4. Controller shows all the tunes of the musical record. Press **[**SET**]** to switch the position of music tracks. Press **[**RUN**]** to select the music tracks. The selected tracks are marked as ▮▮. When the selection is finished, press **[**SET**]** until the beep and then start the copy.



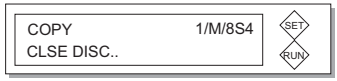
5. [LONG OPC]
Controller does OPC, Optical Proximity Correction, on blank discs. The controller will optimize the laser power for that disc



6. [LONG WRT]
Controller is writing in the lead-in area of blank disc.



7. Controller is duplicating the discs.



8. Once the session is closed no more dada can be added.

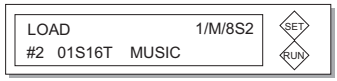
9. Once the disc is closed, the drive will eject the source disc. If you are continuing the compilation to another musical record, please insert the source disc and repeat steps 2 to 4.

10. Press **[**RUN*]* to cancel the compilation and then return to nirmal operation mode.

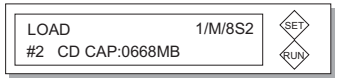
3.4.2 Compilation and duplication thru built-in HDD

The maximum capacity of a compilation is 99 minutes or 99 tracks per partition.

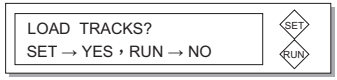
Loading Audio CD Tracks Into HD:



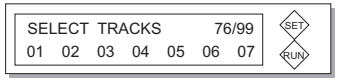
1. Select the Hard Disc partition where you want to edit the Audio CD tracks. (You can refer to “Set Partition Name”)



2. Put the source disc in any of the CD/DVD drives. Wait until the flashing letters display on the LCD Screen, which means the drive has detected the source disc.



3. Push the **[**SET**]** button.



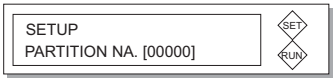
4. Remove the Audio CD (source Disc) and push any key to exit. If you want to add more tracks to the selected Hard Disk partition, then insert another Audio CD (Source Disc 2) and close the tray and go back to Step 3. When you finished loading push any key to exit.

5. Once the disc is closed, the drive will eject the source disc. If you are continuing the compilation of another recording, please insert the source disc and repeat steps 3 to 4.

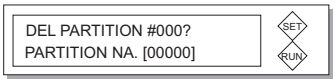
3.4.3 Delete the Contents in HDD Partition

Press the [SET] button to change to “PARTITION NAME” in {SETUP} mode. Refer to the foregoing descriptions in [Set Partition Names in HDD] section to delete the contents in any particular partition. Press and hold the [RUN] button for 3 seconds. The LCD display will show the command if the deletion has been chosen. If the chosen audio track(s) is/are shown in the command line, then it/they will be deleted.

Deleting info. or Audio Tracks from Specific HD Partition:

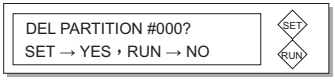


1. Hold the [SET] button for 3 second and then release it. The controller will then enter the setup mode.



2. Push the **[**SET**]** button select “Partition NA.”

3. When the partition contains sound tracks as the shown on left, press [SET] button repeatedly as many times as there are tracks

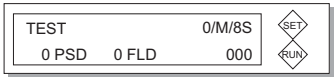


4. When the last track has been deleted, the LCD will display the frame on left.

3.5 Unable to identify the master CD being w/o RING protection

In Advanced mode press the [SET] button to change to {SKIP READ ERR.}
Set it to [SHORT] in the {SKIP READ ERR} function. Then press the [SET] button 1 more time to change to {CHECK TRK LEN} function. Set it to [SHORT] as shown below in the captured screens. Once this setup is complete, it will enable copying the master CDs that are unable to be identified with or without RING. protection. The setting does not affect normal copies.

Duplication of Source Disc with Bad Tracks which Can Not be Judged by the Surface:



1. In operation mode, press **[**SET**]** until the beep. It then enters the setup mode.

2. Press **[**SET**]** than switch to Advanced mode, and enter to Advanced mode menus with **[**RUN**]** under setup mode.

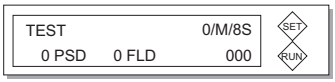
3. InAdvanced mode, press **[**SET**]** and switch to “SKIP READ ERR.” then set it to [SHORT] thru **[**RUN**]**.

4. Presses **[**SET**]** amd switch to “Check TRK LEN” then switch the setting to [SHORT] thru **[**RUN**]**.

3.6 RING Setup in Master CDs.

In Advanced mode press the [SET] button to change to {SKIP READ ERR.}
Set it [LONG] in the {SKIP READ ERR} function. Press the [SET] button one more time to change to {CHEK TRK LEN} function. Set it to [LONG] as shown below in the captured screens. Thru this setup, you can do a copy with RING master CDs. This setting does not affect normal copies.

Duplication of Source Disc with Bad Tracks:



1. In operation mode, press **[**SET**]** until the beep. It then enters the setup mode.

2. Press **[**SET**]** than switch to Advanced mode, and enter to Advanced mode menus with **[**RUN**]** under setup mode.

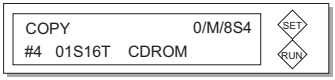
3. InAdvanced mode, press **[**SET**]** and switch to “SKIP READ ERR.” then set it to [SHORT] thru **[**RUN**]**.

4. Presses **[**SET**]** amd switch to “Check TRK LEN” then switch the setting to [SHORT] thru **[**RUN**]**.

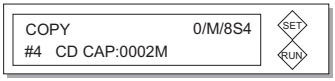
3.7 Updating the Controller Firmware

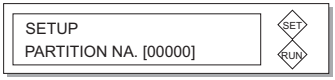
Put the update CD into any of the Drive/Writers. In the operation mode, hold the [SET] button until beep sound. It's now entering the {SETUP} mode. Change to the {UPDATE FIRMWARE} function and press the [RUN] button to start the firmware update.

Duplication of Source Disc with Bad Tracks:

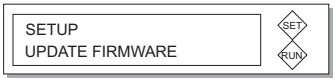


1. Insert the CD with the firmware upgrade into one of the drives, and wait for the controller to check it.

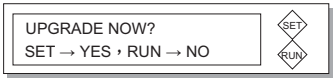




2. Hold the [SET] button for 3 seconds and then release it. The controller will then enter the setup mode.



3. Press the [SET] button and select the "UPDATE FIRMWARE". Then press the [RUN] button to start the firmware upgrade.



4. Push the **[**SET**]** button to begin.

5. Attention: do not turn off the power or push any keys while upgrading the controller firmware, it will crash the system and the only way to fix it is send it back to your local distributor for repair.

6. After the upgrade has been completed, the system must be rebooted.

NOTES

1. Check the voltage setting before you plug in the duplicator to see if it fits the local standard. If the setting is incorrect, it may result in the unstable display and damage to the system.
2. Please be aware that the power cord connection of the controller card connects to the card in the opposite way of the DVD drives.
3. Please note that the controller is mainly for you to backup and keep personal files. It is not intended to be used as an authentic disc quality tester.
4. Please reload the source to HDD if the firmware in the controller has just been updated.
5. If it fails to execute {TEST} when using DVD+R formatted blank media and if you insist on running the function, the display will show [PLEASE CHANGE TO COPY MODE].
6. If a DVD master is placed into the source drive and you insert a CD blank into one of the writers, then the system will display [PLEASE USE BLANK CD]
7. How controller finds the source?
   1) When there is a combination of drives and/or built-in HDD in the system, the controller seeks the source disc in those drives or saved files in HDD.
   2) If there is no source in either the drive or HDD, the controller seeks the devices sequentially in turn. Please watch the right upper side the S(*) sign when there are flashing letters in the display screen. e.g. “S5” means that the source is in the 5th writer.
   3) If the source device is preset using [CHOOSE SOURCE], the controller will run{ COPY} thru that preset source.
8. Please check the position of drive where the source is put before you run each function. The position of the device should be same as that shown in the display.
9. If both the source and the targets are DVD+RW, please be sure that the position of the source device is correct.
10. Special attention should be made to direct DVD drive-to-drive copy.
    1) DVD default settings :
       1.1 We cannot guarantee the quality of read-out in direct copy due to the performance variations with and among different DVD drives. The DVD controller supports the highest

possible read-out speed in direct copy using the drive models listed below.

1.2 Lite-on JLMS XJ-HDD 166S / 167□Pioneer DVD121/122 support full speed in disc-to-disc copy. However, the prerequisite is that the source disc must be DVD+R or Book Type such as DVD-ROM.

1.3 Please contact us regarding the firmware for the above-mentioned models.

1.4 Reset it only once in firmware update to the controller. It remains the original setting when system reboot.

2) Manual setting to DVD write-in speed

2.1 Press and hold the SET button for 3 seconds. The system will then enter the {SETUP} mode.

2.2 Change to setting to 'DVD Writing Speed'.

2.3 Press [RUN] to change the default setting from MAX to 18X.

2.4 Once the setting is changed, the DVD controller will support the highest read-out speed of the installed DVD drives in direct the copy mode. However, it will have an effect on the copy quality in direct copy because the DVD drives are not able to read out the data in real time.

11. When upgrading the controller firmware please check for the following conditions if the LCD screen displays "Wrong VENDOR" message.

1) The system's language or the corresponding controller model is different than the version in the update CD.
For example : Either the controller is in Chinese language system but the update CD firmware is in the English language, or the controller model starts with CDR but the update CD is for the DVD model.

2) Possible error in burning or saving of downloaded firmware.
For example : You can use BURN IMAGE to burn .iso files but must drag .bin files for burning.

1) The LOGO setting in the existing firmware of the controller does not match what's in the update CD.

2) Please make sure that the file is formed as .bin after being burned onto the updated CD.

3) Once all of the above conditions have been met, please burn the firmware again.

12. How to duplicate a CD+G source disc?
In [CD WRITING WAY] in the 'Advanced Mode', change to {RAW} using the [RUN] button. Whether the direct copy thru drives or the copy thru a HDD is chosen, the installed CD/DVD drives must support the write-in or read-out mode to {RAW}.

13. How to determine if the DVD movie has CSS protection.

OPERATION MODE MENU

5.1 TEST

{TEST} simulates a duplication run either thru a disc-to-disc or HDD-to-disc mode. {TEST} just does the burning test but does not actually write to the blank disc. The source location is determined by the controller and can be either the built-in HDD or one of the drives.

5.2 COPY

{COPY} does an actual burn either thru disc-to-disc or HDD-to-disc mode and is decided by the user settings in the controller. {COPY} enables the compilation of data or audio discs directly thru the source discs. Press and hold the [RUN] button for 3 seconds to execute this function. Please refer to chapter 3.3.

5.3 COMPARE

Compare pre-saved files either in the source drive or on the HDD to that in the copied CD.

5.4 COPY & COMPARE

COMPARE follows COPY.

5.5 VERIFY

Verify the copied discs to see if there are any unreadable sectors.

5.6 ERASE

This mode erases the data on discs and is available under +R/RW writers and -R/RW media. The default setting is {Quick Erase}. Pressing and holding the [RUN] button for 3 seconds will do a {Full Erase}. The system display will be the same but the process will take longer.

5.7 LOAD

If the system has a built-in HDD, you can execute {LOAD}. You can load data from the source disc to HDD partitions. The original data in the partition will be over written. Users do not have to reset the partitions if the load is for copy instantly since it just needs a partition for work only. If you are loading various sources to the HDD, change to {PARTITION NAME} to set the partition after each load is finished. This avoids overwriting the original data in the partition.

{LOAD} enables the audio tracks in the source disc to be added to HDD partition. Press and hold the [RUN] button for 3 seconds to execute this mode. For details, please refer to chapter 3.3.

SETUP MODE MENU

The menus in the {SETUP} mode allows the user to setup an operation in the SmarrCopy™ Duplicator. Pressing the [SET] button allows you to make changes to all any available functions. Pressing the [RUN] button allows you to change the setup. Most setup options are in parentheses. The content in the parentheses indicates the present setup value. Hold the [SET] button until a beep sounds. It will then exit the setup mode and return to the operation mode.

6.1 Partition Name

Set up the ID and the partition number of HDD.
The partition number is formed using 5 digits. The first 2 digits are the I.D. of the HDD section that you wish to change. It can be from 00 to 99. The remaining 3 digits represent the position of the partition determined by HDD capacity. The Default setting is 00000.

Press and hold the [RUN] button for 3 seconds to delete a particular partition. Any audio tracks in that partition will be deleted. SmarrCopy™ Duplicator queries you to see if you really want to delete the partition. Press the [RUN] button to cancel the command or press the [SET] button to continue with the deletion of the partition.

6.2 Set as Default

The SmarrCopy™ Duplicator stores the argument settings in the advanced mode. Use this function if you want to save these settings as a default setting.

6.3 Update Firmware

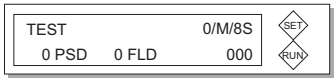
6.3.1 Update the Controller Firmware

Change the {SETUP} mode and enter into the operation mode by holding the [SET] button until beep sounds. Change the function to {UPDATE FIRMWARE}. The SmarrCopy™ Duplicator system will start to detect the devices to find the update CD. When the system finds the correct Update CD, it will query the user to confirm the Update. To cancel the command, just press the [RUN] button. When the SmarrCopy™ Duplicator system is performing an update do not turn off the system power. Doing so will cause the system to will fail and result in a shut down. The only way to

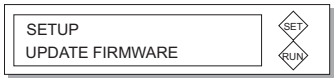
remedy this is to send the system back to the manufacturer for repairs. When the update action is finished, the screen will show a message and all arguments will return to default settings. Please restart the system to complete the task.

6.3.2 Updating Drive/Writers Firmware

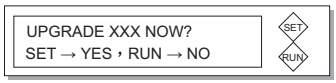
In the operation mode, hold the SET button until beep sounds to enter the {SETUP} mode. Change the function to {UPDATE FIRMWARE}. The SmarrCopy™ Duplicator Controller searches for the update CD put in the drive/writers. When SmarrCopy™ Duplicator Controller detects the correct update CD, it will query you to confirm the update. To cancel the command, just press the [RUN] button.



1. In operation mode, insert the update disc to any of the drives. Wait until the controller detects the update disc.



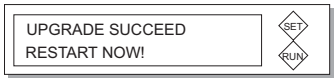
2. In operation mode, press **[**SET**]** until the beep. Enter the setup mode and select “UPDATE FIRMWARE.”



3. DVD-18X controller asks if you are really going to update firmware. Press **[**SET**]** for YES or **[**RUN**]** for NO.
   * XXX represents the brand of the device.

4. Press [RUN] to update the firmware of drive.

NOTE: Updating the firmware will take 120 sec. Do not turn off the power or press and buttons. Doing so will cause a system crash.
**XXX represents the brand of the device.



5. The display shows the succssful update. Please restart the DVD-18X controller.

NOTE: Before you restart the controller, Please take out the update disc from the drive in advance.

6.3.3 What you need to Know About Firmware Updates

1) Before doing an update, please be sure that you have correct firmware version.
2) Because of some unforeseen factors successful firmware updates are not guaranteed.
3) If the firmware update fails, please consult your supplier.

6.3.4 Firmware Support List for CD/DVD Drives.

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
LITEON	CD-ROM		
	LTN-529S	7S57	
	LTN-529SV	7$58	
	CD-RECORDER		
	LTR-52327S	QS0E, QS5A	
	LTR-52328S	4S07	
	LTR-52329S	2S09	
	SOHR-5239S	2S0B	
	SOHR-5239V	2$0B	
	COMBO CD-RW		
	SOHC-5236K	RK0A (18X Read)	
	DVD-ROM		
	LTD-166S	DS1E (18X Read)	
	SOHD-167T	9S1B (18X Read)	
	SOHD-16P9S	FS09 (18X Read)	
	SOHD-16P9SV	F$01 (18X Read)	
	DVD-RECORDER		
	SHOW-811S	HS0R (12X Read)	
	SHOW-812S	US0S (12X Read)	
	SHOW-832S	VS0M (12X Read)	
	LDW-851S	GS0P (12X Read)	
	SOHW-1213S	TS0J (18X Read)	
	SOHW-1613S	AS06 (18X Read)	
	SOHW-1633S	BS0Y (18X Read)	

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
LITEON	SHW-1635S	YS0V	
	SOHW-1653S	CS0T (18X Read)	
	SHOW-1673S	JS0D (18X Read)	
	SHOW-1693S	KS0B (18X Read)	
	SHW-160P6S	PS09	
	SHM-165P6S	MS0N	
	SHW-16H5S	LS0W	
NEC	DVD-RECORDER		
	ND-2510	20F9	MAD DOG
	ND-2510	205C	DELL
	ND-3500	2.1B	
	ND-3520	3.07-OFFICA	
	ND-3520	3.23	IO-DATA
	ND-3540	1.03-FAST	
	ND-3540	1.04	
	ND-3540	1.24	IO-DATA
	ND-3540	1.W9	
	ND-3540	1.F1	MAD DOG
	ND-3550	1.06	
	ND-3550	1.Y6	
	ND-4550	1.08	
	ND-4550	1.29	IO-DATA
	ND-4550	1.F1	MAD DOG
	ND-4550	1.X7	
	ND-4550	1.84	
	ND-4551	1.08	
	ND-4551	1.21	
	ND-4551	1.22	IO-DATA
PIONEER	DVD-ROM		
	DVD-122	1.03	
	DVD-123	1.06	

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
PIONEER	DVD-RECORDER		
	DVR-107D	1.22	
	DVR-108D	1.20	
	DVR-109D	1.58	
	DVR-109D	1.58-FAST	
	DVR-109D	8.58	
	DVR-110D	1.39	
	DVR-110D	8.37	
	DVR-A10	1.39	
	DVR-A10	1.39-FAST	
	DVR-110	1.39	
	DVR-110	8.39	
	DVR-111D	1.19	
	DVR-A11	1.19	
	DVR-A11	1.19-FAST	
	DVR-111	1.19	
	DVR-111D	1.19	
BENQ	DVD-RECORDER		
	DW-1610A	B8V9	
	DW-1610A	G8M9	
	DW-1620A	B7W9 (18X Read)	
	DW-1625A	BBIA (18X Read)	
	DW-1640A	BSPB	
	DW-1640A	GSHB	
SONY	COMBO CD-RW		
	CRX320EE	RYK1	
	DVD-ROM		
	DDU1612	DYS3 (18X Read)	
	DDU1613	9YS2 (18X Read)	
	DDU1615	FYS2 (18X Read)	

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
SONY	DVD-RECORDER		
	DRU-70A	VY08 (12X Read)	
	DRU-710A	BYX5 (18X Read)	
	DRU-720A	JY07 (18X Read)	
	DRU-720A	JY08 (18X Read)	
	DRU-800A	KY06 (18X Read)	
	DRU-810A	1.0E	
	D22A	BYS3	
	D23A	CYS1	
	D26A	JYS2	
	DW-Q28A	KYS4	
	DW-Q28A	KYR6	
	DW-Q30A	YY04	
	DW-Q31A	KYS6	
	DW-U18A	UYS4	
	DW-G120A	MYL2	
	DW-G120A	MYR3	
	DW-G120A	MYS3	
MEMOREX	DVD-RECORDER		
	DVD+- DLRWL1 F16	BWSE	
	DVD+- RW TRUE8XI	UWS4	
	DVDUR RW 8412AJ	HWS7	
MSI	DVD-RECORDER		
	DR16F	2.10	
	DR16F2	2.50	
	DR16B3	B1.1 (18X Read)	
NU	DVD-RECORDER		
	DDW163	G7V9	
TEAC	DVD-ROM		
	DV-516G	F4S6	
	DV-516G	F4S6 (18X Read)	

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
TEAC	DVD-RECORDER		
	DV-W512G	T4S9 (18X Read)	
	DV-W516G	B4S6	
	DV-W516G	B4S6-LowSpeedSupport	
	DV-W516GB	J4S2	
	DV-W58G-A	U4S7	
	DV-W58G	H4S4	
LG	DVD-RECORDER		
	GRA-4120B	A116	
	GSA-4082B	A209	
	GSA-4160B	A306	
	GSA-4163B	AN16	NEC
	GSA-4163B	A106	
PLEXTOR	CD-RECORDER		
	FREMIUM PX-W5232TA	1.06	
	DVD-RECORDER		
	PX-78A	1.12	
	PX-712A	1.09	
	PX-716A	10.9	
	PX-740A	1.01	
ASUS	DVD-ROM		
	DVD-E616A	1.08	
	DVD-E616P2	1.08	
	DVD-E616P3	1.07	
	DVD-E616P3	1.07	OEM
	DVD-RECORDER		
	DRW-0804P	1.21	
	DRW-1604P	1.18	
	DRW-1608P	1.57	
	DRW-1608P2	1.39	

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
	DRW-1608P2S	1.39	
	DRW-1608P	1.57	BULK
TOSHIBA	DVD-RECORDER		
	SD-R5275	1031	
	SD-R5372	TU56	
GIGABYTE	DVD-RECORDER		
	GO-W1608A	B8S3	
	GO-W1616A	J8S2	
	GO-W0808A	USY1	
BTC	DVD-ROM		
	BDV316G	0019	
	DVD-RECORDER		
	DRW1004IM	0251	
	DRW1116IM	A190	
HIVISON.COM	DVD-RECORDER		
	DRW3S121	TSW1 (18X Read)	
4KUS	CD-ROM		
	CCD-9S52	7SGB	
	CD-RECORDER		
	CDR-9S52	2SGB	
	CDR-9S52	2$G6	
	COMBO CD-RW		
	COB-6K5216	RKG5	
	DVD-ROM		
	DVD-16X65	DSG2 (18X Read)	
	DVD-7T16	9SG6 (18X Read)	
	DVD-9S16P	FSG2 (18X Read)	
	DVD-RCORDER		
	DRW-1S81	HSG8	
	DRW-2S81	USG4	
	DRW-2S83	VSG1	

CD/DVD DRIVE OR WRITER	MODEL NAME	FIRMWARE VERSION	OEM NAME
4KUS	DRW-3S121	TSG2	
	DRW-3S163	BSG5	
	DRW-3S165	CSG5	
	DRW-3S167	JSG8	
	DRW-3S169	KSG3	
	DRW-5S163	YSZ2	
	DRW-5S163	YSG6	
	DSM-6S165P	MSG7	
HP	DVD-RECORDER		
	HP530R	VPSG (12X Read)	
IMATION	DVD-RECORDER		
	IMWDVRW8I	HSI3	
IOMEGA	DVD-RECORDER		
	DVDRW12448	TOSB (18X Read)	
PHILIPS	DVD-RECORDER		
	ED16DVDR	B5S6	
	ED8 DVDRW	V5S3 (12X Read)	
OPTODISC	DVD-RECORDER		
	OptoriteDD0201	2.60	
TDK	DVD-RECORDER		
	DVDRW 1612DLB	C7S3 (18X Read)	
	DVDRW 1280B	T7S4 (18X Read)	
AOPEN	DVD-RECORDER		
	DUW-1608P	A080	

6.4 CD READING SPEED

The setting to CD drive reading speed. CDR models support :
MX/01/02/04/06/08/10/12/16/20/24/32/40/46/48/52

[MX] : The maximum speed in CD reading. If the setting exceeds the highest CD reading speed of the drive, the drive works at its highest speed.
[MD] : It reads at the highest speed the blank disc supports.

RUN – Modify parameter
SET – Save and Quit
Default setting is [MX].

6.5 CD WRITING SPEED

The setting to CD writer writing speed. CDR models support :
MX/01/02/04/06/08/10/12/16/20/24/32/40/46/48/52

[MX] : The maximum speed in CD writing. If the setting exceeds the highest CD writing speed of the writer, the writer works at its highest speed.
[MD] : It writes at the highest speed the blank disc supports.

RUN – Modify parameter
SET – Save and Quit
Default setting is [MX].

6.6 DVD READING SPEED

The setting to DVD drive reading speed. DVD models support :
MX/1/2/2.4/4/6/8/12/16/18

[MX] : The maximum speed in DVD reading. If the setting exceeds the highest DVD reading speed of the drive, the drive works at its highest speed.
[MD] : It reads at the highest speed the blank disc supports.

RUN – Modify parameter
SET – Save and Quit
Default setting is [MX].

6.7 DVD WRITING SPEED

The setting to DVD writer writing speed. DVD models support : MX/MD/1/2/2.4/4/6/8/12/16/18

[MX] : The maximum speed in DVD writing. If the setting exceeds the highest DVD writing speed of the writer, the writer works at its highest speed.
[MD] : It writes at the highest speed the blank disc supports.

RUN – Modify parameter
SET – Save and Quit
Default setting is [MX].

6.8 BURN TEST MODE

The purpose of Burn-in feature is to test the compatibility between the System and the burners.
This feature will apply the {TEST} and {COMPARE} function.

RUN – Modify parameter
SET – Save and Quit
Default setting is 'Disable'.

6.9 ADVANCED SETUP

Enter Set-Up mode using the [RUN] button and chose 'Advance Functions'.
Some features in "Advance Functions" are as follows;
Pressing the [SET] button until its beep sound changes brings you to go back to the last screen.
Pressing the [SET] button two times will bring you back to the Main Screen.

AVANCED MODE MENU

7.1 CHOOSE SOURCE

Changing the device code of the source. Press [RUN] to change the default code setting for source device. The digits displayed represent the device code. “A” means the auto-operation determined by SmarrCopy™ CD/DVD Duplicator controller itself. If the SmarrCopy™ CD/DVD Duplicator controller is in the auto-operation mode, it will seek and sort the source devices below.

A. DVD-ROM drive contains a readable disc.
B. The system includes a built-in HDD where there are readable data in the partitions.
C. Recorder/Writer contains a readable disc while the device code is the smallest.

RUN – Modify parameter
SET – Save and Quit
The Default setting is [A] which means that the SmarrCopy™ CD/DVD Duplicator controller is in its auto operation and will determine items A, B, and C above.

7.2 DISC COUNTER

The number of the target discs in auto-operation mode.
Those digits stand for the number of discs.

[M]: Press the [RUN] button manually.
[A]: The SmarrCopy™ CD/DVD Duplicator controller in auto-operation determines the number of target discs that are in the machine to be copied. Normally, the number of target discs is equal to or less than the number of writers in a system.

RUN – Modify parameter
SET – Save and Quit
Default setting is [M] which means manual operation.

7.3 SKIP READ ERR

SmarrCopy™ CD/DVD Duplicator controller skips the read errors of the source disc and keeps on reading.

[NO] : The drive instantly rejects the source disc when encountering read errors. The display will show a copy failure.
[SHORT] : The system skips read errors by 2-KB sectors
[MED] : The system skips read errors by 100-KB sectors.
[LONG] : The system skips read errors by few-MB sectors.
[SKIPA] : The system skips the reading of a track when encountering the first bad sector.

RUN – Modify parameter
SET – Save and Quit
The Default setting is [NO]

7.4 CD WRITING WAY

The SmarrCopy™ CD/DVD Duplicator controller provides 3 modes for CD reading/writing and follows its default writing setting when the reading the source drive. If you want to change the CD writing mode, reset the appropriate writing mode before loading dicks. If you force the setting, the accuracy of your copies will be questionable.

[DAO] : Short for Disc at Once which is in most common use.
[TAO] : Short for Track at Once which means track-by-track writing. This mode is in rare use.
[RAW] : This mode is rarely used. It is only available when installed writer supports RAW writing. If the 2 modes mentioned above both fail, you can try RAW.

RUN – Modify parameter
SET – Save and Quit
Default setting is [DAO].

7.5 DVD WRITING WAY

[DAO] : Short for Disc at Once which is in most common use. DAO is fit for not only outdated but up-to-date DVD writers.
[INC] : INC improves the readability in other DVD players. INC suits old writers or writers which support INC writing.

RUN – Modify parameter
SET – Save and Quit
Default setting is [DAO].

7.6 CHECK TRK LEN

There are various ways for the detection of bad sectors.

[NO] : Read as GAP = 0.
[AUTO] : Read by standard GAP.
[SHORT] : Read by short GAP.
[LONG] : Read by long GAP.

RUN – Modify parameter
SET – Save and Quit
Default setting is [SHORT].

7.7 SHOW DISC INFO.

Show the disc info. what is put in the drive/writer.
For CDs : It shows ATAPI CODE
For DVDs : It shows MANUFACTURE CODE

7.8 SHOW SYSTEM INFO.

Shows hardware information about the controller, drive, writer, and HDD.

7.9 SHOW EXE. TIME

Shows the time used to execute a function to completion.

RUN – Enable or Disable
SET – Save and Quit
Default Setting is 'Disable'.

7.10 AUTO EXE. TIME

The system must detect the blank discs before this function can be executed. Regardless of the number of the blank discs put in the writers is correct or not, the controller goes executing the functions automatically. This execution is not repeated until the cancellation of this option.

RUN – Modify parameter
SET – Save and Quit
Default Setting is '60sec'.

7.11 ENABLE SEND OPC

Adjusts laser power to the blank discs to optimize disk-burning process. Because there is no such thing as a perfect blank disk, using OPC, Optical Proximity Correction, we can determine the best level of power from the laser to be applied to the particular target disks you are using. SmarrCopy can therefore produce the lowest read error rate.

RUN – Enable or Disable
SET – Save and Quit
Default Setting is 'Enable'.

7.12 SUPPORT UPC/ISRC

Copy the UPC code of music CDs and the ISRC code tracks. The system will copy all of the ISRC code information. It records the country of manufacture, the owner, the date, the serial number of each track…etc. The content can be different from track to track.

RUN – Enable or Disable
SET – Save and Quit
Default Setting is 'Disable'.

7.13 REGION FREE SET

Rips the restriction of DVD movie region coding and automatically sets the region code to free . As such, the duplicated DVD movies have no protection to the region code. Please note that the DVD movies must first be non-CSS.

RUN – Enable or Disable
SET – Save and Quit
Default Setting is 'Disable'.

7.14 PARTITION SIZE

Assign the space of HDD partition according to the demand. Therefore, it can increase the utility rate of HDD space and makes it flexibly to data storage thru the partition blocks.
The system default setting is 9GB. Once you have changed the size of partition, you have to reload the source. Please also be aware of the size between the source disc and the assigned partition block.

RUN – Modify parameter
SET – Save and Quit
Default Setting is '9G'.

7.15 CD GIGAREC RATE

Supports the GigaRec technology of Plextor PX-712A and PX-716A writer. This function is not available in the Advanced menu unless there is a Plextor PX-712A and PX-716A writer installed in the system.
The GigaRec technology will back up 1GB of data on a normal 740MB CD, that is to say, enabling disc capacity over-burn on particular CDs. It enables up to 99min. 59sec. of music or 875MB of data. That is because of the higher rank of the tracks and then increase or decrease the record density, the record capacity, over the unit square measure.
The most important thing is that the CD must be read on Plextor PX-712A.

RUN – Modify parameter
SET – Save and Quit
Default setting is '100%'.

7.16 DISABLE L0 CHANGE

This feature enables you to change the DL writing method; it allows for a more efficient and quicker backup to an 8.5G DL Disk.

RUN – Enable or Disable
SET – Save and Quit
Default Setting is 'Enable'.

7.17 BOOT DELAY TIME

Some 18X writers take more time to initiate and can cause delays in the time it takes the system to boot, but other writers will not cause this problem. If the writers are able to support quick initiation, the feature will allow the user to change this parameter to shorten the boot time. The default setting will give enough time to insure that all writers are able to complete the boot process.

RUN – Modify parameter
SET – Save and Quit
Default Setting is'0'

7.18 FAST CLOSE DISC

This feature works only with DVD+R discs with data of less than 1G. This feature does not work for all writers, unless the writer supports this function.

RUN – Modify parameter
SET – Save and Quit
Default Setting is 'Disable'

7.19 DISABLE POWER REC.

As usual, the user can decide at which speed he/she would like to burn, however, high speed writing may lead to poor writing quality and a high failure rate. At the same time, the user should consider the quality of the discs being used. Enable Power Rec. allows the duplicator to recognize the disk quality and the best or optimal writing speed for those particular disks. However, this feature is only supported for some writers, and not for all.

RUN – Modify parameter
SET – Save and Quit
Default Setting is 'Enable'

7.20 AUTO CLOSE TRAY

When the user inserts a master disk in the ROM tray, and presses the [RUN] button, the system will automatically load the information on master disc onto the hard drive.

RUN – Modify parameter
SET – Save and Quit
Default Setting is 'Enable'

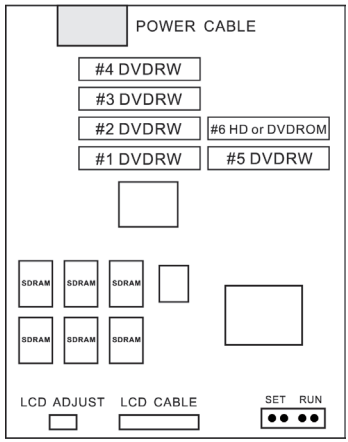
APPENDIX

8.1 Specification

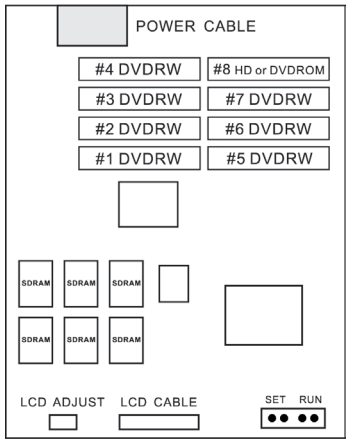
Controller Model	DVD-163/165	DVD-167	DVD-M09	DVD-1611
Display	20 X 2 Character with Lighted Background LCD			
Input	2 Push Button			
Memory	128MB SDRAM			
Device	3/5	7	9	11
Writing Method	CD		DAO, TAO, RAW	
	DVD		DAO, INC	
Recording Speed	CD		1X-52X	
	DVD		1X-18X	
DVD Format	DVD-ROM, DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-Video, DVD+R DL, DVD-R DL			
CD Format	CD-ROM, CD-ROM XA, CD-Audio, CD Extra, CD Text, CD-Bridge, Photo-CD, Video CD, Hybrid CD			
Storage Device	IDE Hard-Disk		It will be divided into several partitions depending upon the capacity of hard disk. It's able to save a different image onto each partition.	
Dimension (L*W*H) mm	235mm X 155mm X 60mm			

8.2 Main Board Diagram

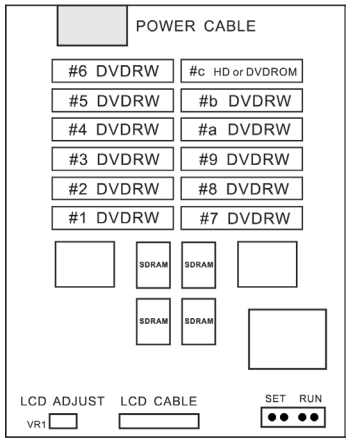
DVD-165



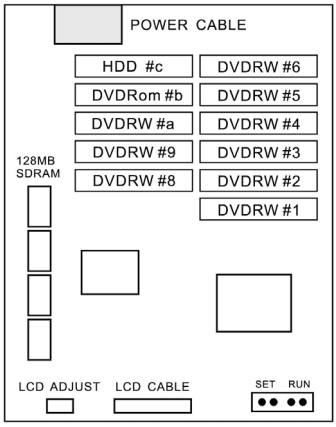
DVD-167



DVD-1611



DVD-M09



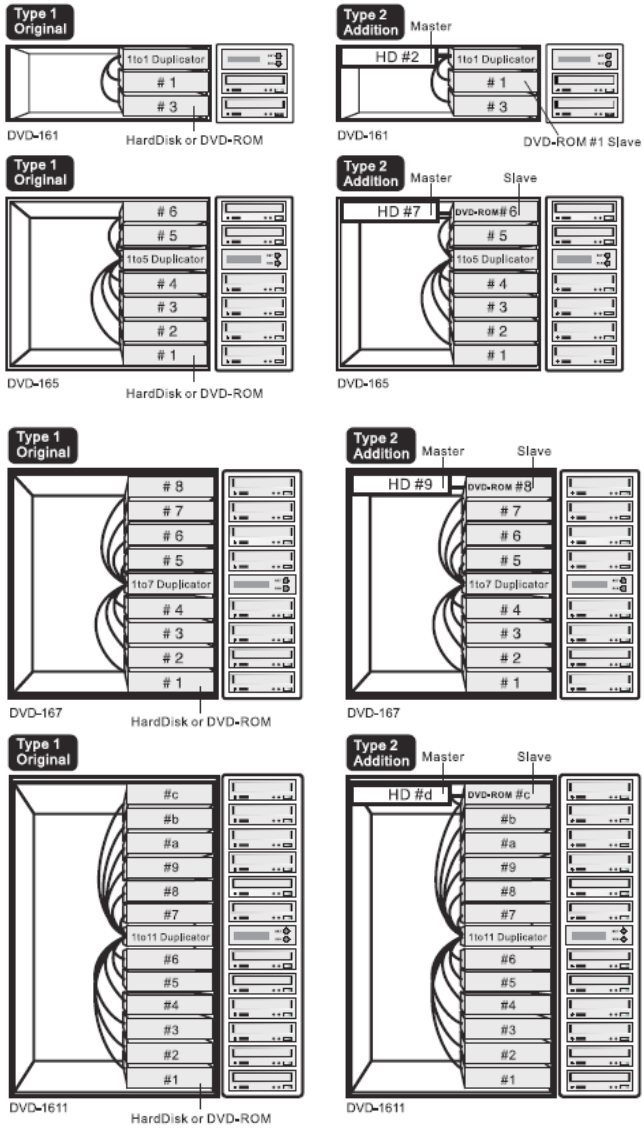
8.3 Installation Instruction

8.3.1

The DVD-163/165, DVD-167, DVD-M09, and DVD-1611 all support C/DVD-ROM and Hard-disc as a source in the same IDE channel. In other words, the user is allowed to choice either one to be a source. Please follow the instruction to install two devices in the latest IDE channel. The HDD should be set to Master and C/DVD-ROM to Slave.

8.3.2

Loading speed will be based on the reader's performance. Using the same source disk in a different C/DVD-ROM will likely produce different reading speed results.



8.4 Error Code Definitions

Code		Meaning
'S'	Set_Speed_Error	Wrong Speed Setting
'r'	Read_Error	Reading Error
'w'	Write_Error	Writing Error
'R'	Read_DMA_Error	DMA Reading Error
'W'	Write_DMA_Error	DMA Writing Error
'U'	CUE_Sheet_Error	Writing Wrong CUE-SHEET
'E'	Erase_Error	Erasing Error
'F'	Format_Error	Formatting Error
'C'	Compare_Error	Comparing Error
'Z'	Synchronize_Error	Syn. Writing Error
'O'	Close_Error	Closing Disk Error
'T'	Terminate_Error	Data Interrupt
'B'	Blankmed_Error	Disk type error between source and target
'A'	Atipcode_Error	Blank disk can not be recognized
'M'	Mcode_Error	Only Support Ritek Medium
'D'	Readdiscinf_Error	Closing Disk Incomplete
'N'	Targnotempty_Error	Non Blank Medium
'P'	Plusrtest_Error	Doing test function with +R Medium
'K'	Unknow_Error	Other Error
'D'	Readdiscinf_Error	Medium Format Error
'J'	CDDVDDisc_Error	Medium Error
'G'	Hard-Disk Reading Error	Hard-Disk Reading Error
'H'	HDD_Write_Error	Hard-Disk Writting Error
'I'	Rev_Track_Error	DVD-R Medium Capacity Error

8.5 Troubleshooting

● SMARRCOPY™ CD/DVD DUPLICATOR Controller is unable to start or starts but without display ??	
Solutions:	
	1.) Check if the power setting in the rear of the system is set to the local voltage standards.
	2.) Open the case to see if the power cables are connected.
	3.) Open the case to see if the cable to the LCD Display is connected.
● The System is Unable to Duplicate CDs.	
Solutions:	
	1.) First check to see if the system detects all the devices. If there are any missing devices, please open the case to check if all the flat cables and power cables are firmly connected. All the devices should be set to MASTER.
	2.) Check to see if there are any scrapes or other visual damage on the source CD.
	3.) Try some other blank CD media.
	4.) Check if the master CD is not copy protected and ready for duplications.
	5.) Check if the source devices are in good condition.
● Deceleration or Unstable Burning.	
Solutions:	
	1.) If you install the devices yourself, please be sure that the installation instructions in user manual have been followed correctly.
	2.) Try to use other blank CD media brands. When the quality of the target CD is questionable you may get poor results. Moreover, it might be that the writers have not yet proofread the blank CD media you are attempting to use. We especially recommend that you open the [Disable Send OPC] function in the setup mode.
	3.) When a hard disk is installed and used as your source drive, the writing/reading stability should be improved. This method will tend to reduce any negative influences caused by a less than perfect source disk

	4.) Any single defective device will affect the writing performance of the system as a whole. Try to locate the defect device if possible.
	5.) If any blank disk does not support high-speed reading or writing, the system speed may become unstable. If this happens, try to slow down the writing speed.For example reduce the speed from 52X to 48X or to 40X.
● Music CDs have interference noise or VCD have blocks.	
Solutions:	
	1.) Check the source quality to see if it has noise or block.
	2.) Slow down the writing speed. For example slow down from 52X to 48X or to 40X.

www.smarrcopy.com

Copyright © 2006 SmarrCopy™